

REMARKS

In the Office Action, Claims 1-4, 10-11 and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,221,019 to Kantorovuch in view of Fatemi, M., et al., Coherent Ultrasound stimulated Acoustic Emission Imaging, IEEE Ultrasonics Symposium 1997, pp. 1411-1414; and Claims 5-9 and 12-30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kantorovuch in view of Fatemi, et al. and further in view of U.S. Patent No. 5,840,029 to Mazess.

Claims 21 has been amended and Claim 30 has been cancelled. No new matter is presented.

Claims 1, 21 and 29 are the pending independent claims. Independent Claims 1 and 29 were rejected in view of a combination of Kantorovuch and Fatemi et al. Independent Claims 21 and 30 were rejected in view of a combination of Kantorovuch, Fatemi et al. and Mazess. The Office Action cites Kantorovuch as teaching “confocal transducers” and cites Fatemi et al. as teaching “using confocal transducers to receive and transmit the ultrasound for determining tissue properties.” (Office Action, page 3.)

Kantorovuch teaches an ultrasound system that uses two ultrasound transducers placed on same side of the testing materials, e.g., compact bone. (See, Figures 1a, 4a, and 4b of Kantorovuch.) In Kantorovuch, the ultrasound wave passes through the material at the surface of the material and, according to the principles of acoustic physics, propagates via fastest pathway in the material, in this case a bone surface. Like Kantorovuch, Fatemi et al. teaches placing the “Ultrasound Transducers” on a same side of the “Object” to be measured. (See Fig. 1 of Fatemi et al.)

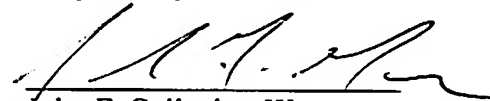
In contrast to the teaching of Kantorovuch and Fatemi et al., the present invention places focused ultrasound transducers at opposite sides of the material, wherein both transducers are confocal transducers, thereby allowing the ultrasound wave to penetrate the material at any region of interest, to reflect the material’s physical properties. As recited in Claim 1, the transducers are *configured to receive the bone sample therebetween*. Claim 21, as amended, receives the sample therebetween. Claim 29, which is the other pending independent claims, similarly recites *positioned between the transducers*.

Accordingly, neither Kantorovuch nor Fatemi et al. disclose or suggest focusing the

ultrasound transducers at opposite sides of the material, as in the present invention. Mazess fails to cure this defect of Kantorovuch and Fatemi et al.

For at least the above reasons, each pending claim, i.e. Claims 1-30, is believed to be in condition for allowance. Issuance of a notice of allowance is respectfully requested. If the Examiner has any questions regarding this communication, the Examiner is requested to contact the undersigned at the below number.

Respectfully Submitted,


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